

Effect of different levels of dietary tomato waste powder on growth indices, feed efficiency and survival rate of Rainbow trout (*Oncorhynchus mykiss*)

Abstract

In order to evaluate the effects of dietary tomato waste powder (skin, seeds and pulp) on growth performance, feed efficiency indices and survival rate of Rainbow trout (*Oncorhynchus mykiss*), number of 225 fish with weight average of 16 ± 4 g in five experimental groups, were randomly distributed in 15 fiberglass tanks (five treatments and three replicates) with density of 15 fish per tank with equal condition. after one week adaptation, fish were fed with five levels of 0, 50, 100, 150 and 200 g tomato waste powder/kg diet for 12 weeks. feeding rate was 3% of biomass weight and twice per day. according to the results, addition of tomato waste powder in rainbow trout diet up to 100 g/kg diet in terms of growth performance, feed efficiency indices and carcass composition have not significant difference with control. index of growth and feed efficiency in treatments containing 150 and 200 g tomato pulp powder was significantly lower than other treatments ($P < 0/05$). Besides, Liver of these fish was larger and colorless than the other treatments due to accumulation of excessive glycogen and their carcass protein content was also less than the other treatments. Results show that inclusion of tomato waste powder at levels of 50 and 100 g per kg diet, although cause slight increase in feed conversion, but reduce the costs of food and fish production and can lead to more profitability.

Key words: Tomato waste powder, Enzyme, Growth, Rainbow trout



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